WHAT IS CLAIMED IS:

1. A radio equipment comprising:

an orthogonal detector for obtaining a complex immediate frequency signal with respect to a real input signal;

a first frequency converter for frequency-converting a target signal outputted from the orthogonal detector into a signal with lower frequency;

a second frequency converter for frequency-converting a non-target signal outputted from the orthogonal detector into a signal of a frequency symmetrical to a signal outputted from the first frequency converter and a direct current component with a frequency of zero; and

a characteristic compensator for compensating for an orthogonality error between a real-axis signal and an imaginary-axis signal occurring in the target signal owing to the orthogonal detector by means of an output signal of the second frequency converter, with respect to an output signal of the first frequency converter.

2. The radio equipment as claimed in claim 1, wherein one side of one of the first frequency converter and second frequency converter utilizes a complex codomain signal of a complex local signal used in other side of one of the first frequency converter and second frequency converter as own local signal.

3. The radio equipment as claimed in claim 1, further comprising:

a first filter for employing a frequency band of the target signal in the output of the orthogonal detector as a pass band and extracting the target signal from the output signal of the orthogonal detector; and

a second filter having a pass band characteristic symmetrical to a direct current component with a frequency of zero, for employing a frequency band of the non-target

signal in the output of the orthogonal detector as a pass band, and extracting the non-target signal from the output signal of the orthogonal detector;

wherein an output of the first filter is frequency-converted to a signal with lower frequency by the first frequency converter, and an output of the second filter is frequency-converted to a signal of a frequency symmetrical to the signal outputted from the first frequency converter and the direct current component with a frequency of zero by the second frequency converter.

4. The radio equipment as claimed in claim 1, further comprising:

a first filter for employing a frequency band of the target signal in the output of the first frequency converter as a pass band and extracting the target signal from the output signal of the first frequency converter; and

a second filter having a pass band characteristic symmetrical to a direct current component with a frequency of zero, for employing a frequency band of the non-target signal in the output of the second frequency converter as a pass band, and extracting the non-target signal from the output signal of the second frequency converter;

wherein the characteristic compensator compensate for an orthogonality error between a real-axis signal and an imaginary-axis signal occurring in the target signal owing to the orthogonal detector by means of an output signal of the second filter, with respect to an output signal of the first filter.

5. The radio equipment as claimed in claim 3, wherein the first filter and the second filter are complex filters for receiving/outputting a complex signal, one side of one of the first filter and second filter inverts a sign of an imaginary-axis side of a complex filter coefficient prepared in other side of one of the first filter and second filter so that the first filter and the second filter can realize a band characteristic symmetrical to a direct current component with a frequency of zero.

6. The radio equipment as claimed in claim 3, wherein the first filter and the second filter are filters for suppressing unnecessary frequency component through a phase process utilizing Hilbert transform.

7. A radio equipment comprising:

a modulator for modulating a complex immediate frequency signal to transmission data;

a characteristic compensator for compensating for an orthogonality error between a real-axis signal and an imaginary-axis signal occurring after a corresponding modulator with respect to the modulated complex immediate frequency signal outputted from the modulator;

a first frequency converter for frequency-converting a target signal outputted from the characteristic compensator into a signal with higher frequency;

a second frequency converter for frequency-converting a non-target signal outputted from the characteristic compensator into a signal of a frequency symmetrical to a signal outputted from the first frequency converter and a direct current component with a frequency of zero;

an adder for adding a real-axis signal of a complex signal outputted from the first frequency converter to a real-axis signal of a complex signal outputted from the second frequency converter, and adding an imaginary-axis signal of a complex signal outputted from the first frequency converter to an imaginary-axis signal of a complex signal outputted from the second frequency converter; and

an orthogonal modulator for obtaining a real output signal with respect to a complex signal outputted from the adder.

8. The radio equipment as claimed in claim 7, wherein one side of one of the first

frequency converter and second frequency converter utilizes a complex codomain signal of a complex local signal used in other side of one of the first frequency converter and second frequency converter as own local signal.